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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)
Gwilym Francis Luff et al.)
Serial No. 09/721,555)
Filed: November 22, 2000)
For: **INTEGRATED RADIO**)
TRANSCEIVER)

Group Art Unit: 2682
Examiner: Milord, Marceau
RESPONSE TO OFFICE ACTION
MAILED December 5, 2003
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Commissioner for Patents
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REMARKS

Applicants respectfully request further examination and reconsideration in view of the the comments set forth fully below. Claims 1-25 were pending. Within the Office Action, claims 1-25 have been rejected. Claims 1-25 are now pending.

Information Disclosure Statement Mailed May 10, 2001

As a preliminary matter, the Examiner has acknowledged all the information disclosure statements filed in this matter by initializing and returning the PTO form 1449 to the Applicant except for the information disclosure statement mailed on May 10, 2001. The Applicant has enclosed a copy of the May 10, 2001 information disclosure statement with the stamped return postcard for the Examiner's convenience. The Applicant would greatly appreciate acknowledgement of this information disclosure statement by return initialed PTO form 1449.

Rejections Under 35 U.S.C. § 103

Within the Office Action, claims 1-25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,890,051 to Schlang et al. (hereinafter "Schlang") in view of U.S. Patent No. 5,966,666 to Yamaguchi et al. (hereinafter "Yamaguchi"). The Applicants respectfully disagree with this rejection. Schlang teaches a mobile phone receiver

comprising a first down converter using a first local oscillator frequency which can be tuned in frequency steps by a programmable digital frequency synthesizer PLL which is locked to a reference frequency. The first down converter converts received signals to a first IF for filtering. A second down converter using a second local oscillator converts first IF signals to a second IF. The second local oscillator frequency is generated using a second digital frequency synthesizer PLL which locks the second oscillator to the reference frequency. A third down converter mixes the transmit frequency with the first local oscillator frequency to produce a lock frequency. A third digital frequency synthesizer PLL compares the lock frequency and the reference frequency to control generation of the transmit frequency [Schlang, Abstract].

As recognized by the Office Action, Schlang does not teach the feature of the reception path, the transmission path, and the frequency generator sharing a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit.

Yamaguchi teaches a multiple band mobile transceiver in which a local oscillator for transmission modulation and a reception second local oscillator are constituted as a single frequency synthesizer and which has a smaller number of parts. Yamaguchi does not teach the feature of the reception path, the transmission path, and the frequency generator sharing a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit. Accordingly, neither Schlang, Yamaguchi nor their combination teach the feature of the reception path, the transmission path, and the frequency generator sharing a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit.

In contrast to the teachings of Schlang, Yamaguchi and their combination, the radio transceiver of the present invention comprises a reception path, a transmission path, and a frequency generator with a programmable phase lock loop sharing a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit. The reception path includes an amplifier and a quadrature mixer for producing low intermediate frequency signals. As described above, neither Schlang, Yamaguchi nor their combination teach the feature of the reception path, the transmission path, and the frequency generator sharing a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit.

The Applicants respectfully submit that the age of the cited references indicates a lack of some teaching or suggestion supporting the combination. The Yamaguchi patent was filed on February 6, 1997. The Schlang patent has a filing date of March 17, 1998. Even with the benefit of a filing date that is one year later than Yamaguchi, Schlang still does not include some

teaching or suggestion that the art taught in each reference can and should be combined. In other words, there is no teaching or suggestion in either references to make the combination made in the Office Action.

Furthermore, the Schlang patent issued on March 30, 1999, and the Yamaguchi patent issued on October 12, 1999. The present application was filed on November 22, 2000, over a year after Yamaguchi issued. The Applicants respectfully submit that if the combination of the cited references was obvious, as is stated in the Office Action, then it is probable that such a combination would have been made prior to the filing of the present application. Therefore, the Applicants submit that this combination of references is indeed not obvious.

The Applicants respectfully submit that the Examiner is relying upon hindsight, having knowledge of the Applicants' own structure. But for this knowledge, the combination of references would not have occurred to the Examiner, as it did not occur to those skilled in the art to make the asserted combination. In other words, the combination proposed by the Examiner is being made only in light of his knowledge of the Applicants' disclosure.

The Applicants respectfully suggest that in the Office Action, the rejections evidence 'picking and choosing' features of the cited references and combining them when there is no suggestion in those references to do so. It is impermissible within the framework of a 35 U.S.C. §103 rejection to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art. *In re Wesslau*, 353 F.2d 238 at 241, 147 USPQ 391 at 393 (CCPA 1965). Furthermore, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. Teachings of references can be combined only if there is some suggestion or incentive to do so.

The independent claim 1 is directed to a radio transceiver comprising a reception path, a transmission path and a frequency generator comprising a programmable phase lock loop having an output coupled to the reception path and the transmission path, wherein the reception path, the transmission path, and the frequency generator share a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit. As described above, neither Schlang, Yamaguchi nor their combination teach the feature of the reception path, the transmission path, and the frequency generator sharing a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit. For at least these reasons, the independent claim 1 is allowable over the teachings of Schlang, Yamaguchi and their combination.

Claims 2-25 are all dependent on the independent claim 1. As discussed above, the independent claim 1 is allowable over the teachings of Schlang, Yamaguchi and their combination. Accordingly, the dependent claims 2-25 are all also allowable as being dependent on an allowable base claim.

For the reasons given above, Applicants respectfully submit that the claims are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
HAVERSTOCK & OWENS LLP

Dated: 3-5-04

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CERTIFICATE OF MAILING (37 CFR § 1.8(a))

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450

HAVERSTOCK & OWENS LLP

Date: 3-5-04 By: [Signature]